



Does misoprostol have value in reducing pain during outpatient hysteroscopy?

Misoprostol *might* reduce pain in postmenopausal women, according to this systematic review. However, the investigators note, “there is **no high-quality evidence** that giving misoprostol before outpatient hysteroscopy reduces the pain experienced by women of reproductive age.”

Cooper NAM, Smith P, Khan KS, Clark TJ. Does cervical preparation before outpatient hysteroscopy reduce women's pain experience? A systematic review. BJOG. 2011;118(11):1292-1301.

► **EXPERT COMMENTARY**

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Dilation of the cervix is the most challenging aspect of both diagnostic and operative hysteroscopy. The most common complications of operative hysteroscopy relate to this challenge; they are perforation of the uterus, laceration of the cervix, creation of false tracts, and inability to perform the procedure. In comparison, complications such as fluid overload, uterine hemorrhage, and postoperative infection are rare.

Historically, laminaria (osmotic dilators) have been used to dilate the cervix in women undergoing hysteroscopic procedures. Although this practice is useful, the placement of laminaria requires an additional office visit and may not always be practical (e.g., when scheduling is difficult or the cervix is extremely stenotic).

Numerous investigators in the past decade have attempted to determine the benefits and risks of vaginal or oral misoprostol to improve cervical dilation and minimize complications of operative and diagnostic hysteroscopy.¹⁻⁵ In this systematic review, Cooper

and colleagues selected six of 585 relevant studies that they identified in the literature to assess pain associated with outpatient hysteroscopy and determine whether misoprostol provides relief. They found some evidence that prostaglandins reduce the force required for hysteroscopy, as well as the need to dilate the cervix beyond 5 mm. They also concluded that vaginal misoprostol may be helpful in postmenopausal patients when the hysteroscope is larger than 5 mm.

In addition, the investigators found that most patients in the selected studies underwent hysteroscopy with a rigid hysteroscope that ranged in diameter from 2.9 mm to 5.5 mm.

Study overlooks many issues

This study has several practical limitations that prevent me from recommending that you base clinical decisions on it. The study:

- does not mention the type of distention media utilized (saline or carbon dioxide), which can affect the pain score. (Saline is associated with lower pain scores.⁶)

CONTINUED ON PAGE 16



No systematic data suggest that misoprostol consistently reduces pain associated with hysteroscopy

WHAT THIS EVIDENCE MEANS FOR PRACTICE

Until we have additional data, I plan to continue using misoprostol to prepare the cervix for hysteroscopy. I also endorse patient education, a nurturing outpatient environment, and a trained ancillary staff to reduce pain and improve the outpatient hysteroscopy experience.

Who knows whether the magic is in the misoprostol or the magician?

»» LINDA D. BRADLEY, MD



- does not mention whether hormone replacement was utilized among menopausal women
- does not mention whether a nonsteroidal agent was given before the procedure or whether a paracervical block was used during the procedure
- does not include any cases involving flexible hysteroscopy with a small-caliber hysteroscope (3–5 mm), which may be associated with less pain.

These omissions are concerning because a number of variables besides misoprostol contribute to the patient's experience of hysteroscopy and influence her satisfaction and degree of pain. It is difficult to tabulate the many nuances that may affect pain, in particular, but they include:

- The type of patient education provided before the procedure
- Whether a vaginoscopic approach was considered or performed. Performing hysteroscopy without a speculum has been shown to produce less discomfort.⁷
- Whether a tenaculum was used routinely before the procedure
- Whether the physician was a seasoned hysteroscopist or a trainee
- Whether a gentle technique was utilized
- The ambiance of the procedure room. (Did it feature music or aromatherapy? Was a supportive relative or friend present?)
- Whether a video monitor was present to allow the patient to visually participate in the procedure. (Many patients find it enjoyable to watch the monitor during the procedure. It offers distraction and, combined with a calm environment and excellent nursing support [a “vocal local”], may reduce pain during the procedure.)

There are an increasing number of clinically useful algorithms available to minimize procedural pain during outpatient and office-based gynecologic procedures.⁸

We need additional studies

Because of conflicting results in the studies included in this systematic review, we need

more investigations of the use of misoprostol for diagnostic and operative hysteroscopy. We also need to evaluate the timing, route of administration, cost, and side effects of misoprostol in this context. Studies that utilize a tonometer to measure the force of dilation would be ideal.

Vaginal bleeding, cramping, and diarrhea have been observed during use of misoprostol, but it would be interesting to determine whether intracavitary pathology plays a role in these effects. Subgroup analyses would also help clarify the ideal candidate for misoprostol and should focus on women who are nulliparous, menopausal, have a history of one or more cesarean deliveries, or have undergone loop electrosurgical excision procedure (LEEP) or cone biopsy, as these are the women at greatest risk of cervical stenosis.

Myometrial contractions often occur during use of misoprostol. It would be clinically useful to determine whether Type-1 leiomyomas are more often removed completely during hysteroscopic myomectomy when misoprostol is given. Anecdotally, I have found it easier to completely excise myomas when the patient has been pretreated with misoprostol. 🍷

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FAST TRACK

Saline distention media are associated with a reduction in pain scores, compared with CO₂

ON THE WEB



Dr. Bradley offers pointers on making hysteroscopy as comfortable as possible, at obgmanagement.com